HAILSTORM NEAR BIRMINGHAM, ALA., MAY 11, 1921.

By Edgar C. Horton, Observer.

[Weather Bureau, Birmingham, Ala., May 30, 1921.]

One of the worst hailstorms ever known in this section of the country, and the worst that has ever come under the observation of the writer, occurred in this county on

the afternoon of May 11.

The storm was apparently one of a series of hailstorms that occurred on that day from eastern Mississippi to eastern Tennessee and northern Georgia, or it was pos-sibly only a part of one continuous storm. A very light hail of short duration fell at this station during the early morning hours, and again during the afternoon at the same hour (about 2 p. m.) as the severe hailfall in the southwestern part of the county.

The storm was variously reported as occurring from 1:10 to 2:15 p. m., and as lasting from 20 to 30 minutes where it was worst. The progressive motion of the storm would account for some of the discrepancy in the time of occurrence, although the postmasters at Johns and Sumter, in the worst affected district, reported the storm as moving at right angles to the major axis of the

affected area.

There was an unbroken area of hail fall, 37 miles or more in length, and from 3 to 8 miles in width, extending from near Yolande northeastward some miles beyond the limits of Birmingham. The region of greatest hail fall was from Adger to Sumter, points respectively about 20 and 24 miles southwest of Birmingham, in the mineral

district of Jefferson County.

Eyewitnesses to the storm and those that visited the district shortly after the storm had passed, reported the ground completely hidden by hailstones, even on the hillsides. In the ravines the hailstones lay one to two feet deep. Trees were so denuded of their foliage that they have been described as having the appearance of trees just budding out in spring. It is reliably reported that the roads were completely obscured by the leaves and boughs broken off by the falling hail.

Mr. John M. De Shazo, a prominent merchant of Birmingham, passed through the affected district about an hour after the hailstorm, and he reported that the air was so chilled that a dense fog surrounded him at Johns and Adger, and that his hands were so benumbed that he was very uncomfortable driving his automobile. Ice started to form on the wind shield. During this time the temperature at the station did not fall below 63°, and the highest and lowest for that day were 83° and 62°.

Some of the hailstones were still on the ground as late

as the 16th, and some say the 17th, under air temperatures that never fell below 57°.

If the quantity of the hail was surprising, the size of the hailstones was phenomenal, ranging from one-half to 1 inch in diameter at the outer edge of the area to 4 inches in the middle of it. The postmaster at Johns reported the stones as being 2½ to 4 inches in diameter, and the postmaster at Sumter stated that the sizes were "from nutmeg to baseball." One hailstone was reported to have weighed a little more than half a pound. A baseball is 9 inches in circumference, and a ball of ice of that size would weigh approximately one-half pound. A conductor on the Louisville & Nashville Railroad gathered up some of the hailstones and brought them to the city, where after 22 hours in a refrigerator they were still larger than hen's eggs.

Automobile tops, where exposed to the hail, were riddled, and wood and felt roofs were badly damaged. In one instance a hailstone penetrated a roof and fell to the floor of a building. A school building belonging to the Tennessee Coal, Iron & Railroad Co., at Johns, constructed with one side almost entirely of glass, had practically every pane smashed. Other buildings were similarly damaged.

Fortunately the heaviest hail did not fall in an agricultural section, or a region where there was much live stock, but rather in the mining section of the county. Gardens were ruined, and timber suffered so that much of it may die. No deaths or serious injuries were

recorded.

HAILSTORM AT WAUSAU, WIS., MAY 22, 1921.

By E. F. Simes. Observer.

[Weather Bureau, Wausau, Wis., May 25, 1921.]

An unusually severe hail and thunder storm, visited Wausau on the evening of Sunday, May 22, 1921. It was most destructive storm that had ever been observed in Wausau.

The storm in question came up quite rapidly from the southwest, moving in a direction a little east of northeast. The center of the storm was evidently just north of the village of Knowlton, and Wausau was on the extreme northern edge; in fact, the sky was visible on the northern horizon throughout the entire storm. Thunder and vivid flashes of lightning were observed at 7:39 p. m.; at 7:53 p. m., the first rain, in the form of unusually large drops, fell with resounding smacks as they struck the pavements. At 8:03 p. m., although the rain had only amounted to a sprinkle, a sound similar to a galloping horse was heard and the first hail fell. The first hailstones were about the size of walnuts, but as the fall increased in intensity, the size of the hailstones increased until they were falling as large as oranges and apples and, in some cases, even larger than that. The hailstorm lasted 12 minutes after which a very light rain fell for about half an hour.

The belt in which hail fell extended approximately from the northern city limits of Wausau to the village of Schofield, but the area in which the unusually large hail fell seemed to be confined to Wausau only. On examination, it was found that the stones which fell at the height of the storm averaged around 31 and 4 inches in diameter while some were reported which measured 18 inches in circumference. On being broken open they were found to be composed of six and seven layers of ice on the average. Some were found with even more layers. All of them had hard centers and most of them were roughly spherical or oblong in shape. Some stones were observed that had a kind of pincushion effect—that is, they were drawn in at the center on two sides as if they had been rotating in only one direction. The wind during the storm was very light, except for a rather strong gust at the beginning, consequently the hail came down almost straight.

It is estimated that the total damage by the storm will amount to \$150,000 or more. Practically every window in the city, facing the west, was broken. A great majority of the trees were literally pruned, fruit trees suffering most by the loss of their tender branches and buds. Garden truck in general did not fare badly,